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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,241	01/22/2004	Hiroshi Wada	248071US0CONT	2022
22850	7590	12/09/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			COONEY, JOHN M	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 12/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,241

Applicant(s)

WADA ET AL.

Examiner

John m. Cooney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,24,26,27,29,31,32,34-36,38-40 and 42-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,24,26,27,29,31,32,34-36,38-40 and 42-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/304,969.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 sheets
09/03; 11/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11-14-05 has been entered.

Any rejection not maintained herein is withdrawn:

Specification

The use of the trademark L-5421 has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 46 and 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The value "about 1" and the range of values "1.00 – 1.15" lack support in applicants' supporting disclosure and the invention as is now claimed was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 42 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 42 contains the trademark/trade name L-5421. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not

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identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe foam stabilizer and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21, 26, 27, 29, 31, 32, 34-36, 38-40, and 42-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeyasu et al.(5,093,380).

Takeyasu et al. discloses preparations of flexible polyurethane foams by mixing and reacting polyols of low-unsaturation and hydroxyl values as claimed which may also contain polymers dispersed within and are prepared using the double metal cyanide catalysts, modified crude MDI as claimed, catalysts, blowing agents, and silicone stabilizers as claimed (see the entire document).

While Takeyasu et al.'s disclosure may be directed towards closed mold operations, the reference is encompassing of combining and reacting the materials generally, and one would readily envision mixing and reacting the materials in an open state from the referenced teaching taken as a whole. Further, as being directed

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towards cushioning articles, straight slabstock foam cushions would be the most readily produced articles with shape/molded forms being produced according to design.

Additionally, Takeyasu et al.'s disclosure of prepolymer modified isocyanates is seen to readily envision the prepolymers of applicants' claims. Takeyasu et al. identifies modified crude MDI to be one of their preferred isocyanate functional materials with prepolymer modified products being one of these modifications mentioned (see column 5 lines 39-43). Based on the limited degree of picking in Takeyasu et al.'s teaching, anticipation is evident. Further, as reaction of the isocyanate with OH and to a lesser degree NH functional compound is what is meant by prepolymer modified products, anticipation of prepolymers based on OH functional compounds is evident.

Takeyasu et al.'s disclosure of silicon stabilizers is seen to be complete in its disclosure of the stabilizers as now claimed (column 5 lines 64-65, and column 7 lines 21-29). The specific stabilizers of Takeyasu et al. are of the same family of stabilizers generally and specifically and are seen to inherently possess Si contents of 10-50 mass % as is now claimed.

Takeyasu et al. discloses crosslinkers generally as is claimed and having molecular weights of less than 10,000 (see column 4 line 52 – column 5 line 26). Additionally, Takeyasu et al.'s disclosure of the employment of other polyols (column 3 lines 46-50) meet applicants' recitation of crosslinkers of MW's > 4000 as claimed.

The hardness ratios set forth in applicants' new claims are held to be inherent to the teachings of Takeyasu et al. since they are attributed to the make-ups of the products formed.

Applicants' arguments have been considered, but rejection is maintained for the reasons set forth above with positions of applicants' arguments being addressed above as well.

The following arguments set forth in the Office action mailed 8-19-05 are seen to still apply as well :

Regarding the molding limitations, in addition to the remarks set forth in the above rejection, it is maintained that although Takeyasu et al. may highlight a closed mold in one embodiment of their disclosure, its full disclosure readily envisions simple mixing in an open area, and such a limitation is not seen to be a distinction over what is fully taught by the teachings of Takeyasu et al.

Additionally, Takeyasu et al. teaches the prepolymer modified polymethylenepolyphenyl polyisocyanate (prepolymer modified crude MDI), and its disclosure of other species of isocyanate does not derogate from its anticipation of applicants' claimed invention. Also, the examples of Takeyasu et al. are not limiting of what Takeyasu et al.'s full teaching discloses.

Claims 21, 26, 27, 29, 31, 32, 34-36, 38-40, and 42-48 are rejected under 35 U.S.C. 102(b) as being anticipated by EP-1,022,300 A1.

EP-1,022,300 A1 discloses preparations of flexible polyurethane foams by mixing and reacting polyols of low-unsaturation and hydroxyl values as claimed which may also contain polymers dispersed within and are prepared using the double metal cyanide

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catalysts, modified crude MDI as claimed, catalysts, blowing agents, and silicone stabilizers as claimed (see the entire document).

EP-1,022,300 explicitly acknowledges that its procedures may be carried out by a method of spreading a reactive mixture into a mold in an open state (see again paragraph [0083]), and such a disclosure can not be ignored because the reference exemplifies closed molding applications.

Additionally, EP-1,022,300's disclosure of prepolymer modified isocyanates is seen to readily envision the prepolymers of applicants' claims [0077]. Takeyasu et al. identifies modified crude MDI to be one of their preferred isocyanate functional materials with prepolymer modified products being one of these modifications mentioned. Based on the limited degree of picking in EP-1,022,300's teaching, anticipation is evident. Further, as reaction of the isocyanate with OH and to a lesser degree NH functional compound is what is meant by prepolymer modified products, anticipation of prepolymers based on OH functional compounds is evident.

EP-1,022,300's disclosure of silicon stabilizers is seen to be complete in its disclosure of the stabilizers as now claimed ([0094] and Table 3). The specific stabilizers of EP-1,022,300 are seen to inherently possess Si contents of 10-50 mass % as is now claimed.

EP-1,022,300 discloses crosslinkers generally as is claimed and having molecular weights of less than 10,000 ([0075]). Additionally, EP-1,022,300's disclosure of the employment of other polyols ([0074]) meet applicants' recitation of crosslinkers of MW's > 4000 as claimed.

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The hardness ratios set forth in applicants' new claims are held to be inherent to the teachings of EP-1,022,300 since they are attributed to the make-ups of the products formed.

Applicants' arguments have been considered, but rejection is maintained for the reasons set forth above with positions of applicants' arguments being addressed above as well.

The following arguments set forth in the Office action mailed 8-19-05 are seen to still apply as well :

Regarding the molding limitations, in addition to the remarks set forth in the above rejection, it is maintained that EP-1,022,300's disclosure of open mold techniques is sufficient anticipatory disclosure of this element of applicants' invention.

Additionally, EP-1,022,300 teaches the prepolymer modified polymethylenepolyphenyl polyisocyanate (prepolymer modified crude MDI), and its disclosure of other species of isocyanate does not derogate from its anticipation of applicants' claimed invention. Also, the examples of EP-1,022,300 are not limiting of what EP-1,022,300's full teaching discloses.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeyasu et al. and EP-1,022,300 (PATENTEES), independently, as applied to claims 21, 26, 27, 29, 31, 32, 34-36, 38-40, and 42-48 above, and further in view of Kiamil et al.(5,164,421).

PATENTEES differ from claim 24 in that the monol modified prepolymers as claimed are not disclosed. However, Kaimil et al. disclose preparations of polyurethane foams using isocyanates prepared using prepolymeric modified polymeric isocyanates obtained through reaction with polyethylene glycol monomethyl ether for the purpose of capping excess reactive sites and economize product synthesis(see column 1, column 2 lines 5-12 & 61 et seq., and claims 4 and 28). Accordingly, it would have been obvious for one having ordinary skill in the art to have modified the isocyanates of PATENTEES with polyethylene glycol monomethyl ether as taught by Kaimil et al. for the purpose of capping reactive cites in the isocyanate functional reactants employed in order to arrive at the process of applicants' claim with the expectation of success in the absence of a showing of new or unexpected results.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21, 24, 26, 27, 29, 31, 32, 34-36, 38-40, and 42-48 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-41 of U.S. Patent No. 6,734,219. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims disclose preparations of flexible polyurethane foams which are prepared by mixing and reacting polyols, PMDI, catalysts, blowing agents and materials wherein difference in the selection of particular "modified" isocyanates would have been obvious selections taking the teachings and suggestion of the claims and the portions of the supporting disclosure which provide support for the claims of the patent (see column 4 line 58 – column 5 line 10).

Applicants' arguments regarding variations of claim limitations have been considered, but rejection is maintained to be evident as set forth above and teaching and suggestion evident as set forth above in regards to the components as claimed including the "modified" polyisocyanates claimed.

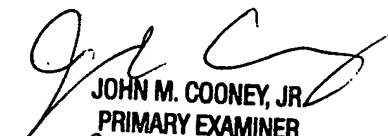
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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nishikawa et al.(5,324,774) is cited for its disclosure of interesting and relevant preparations in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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